

Approved
5/11/05
ABP

On page 2, line 22, please insert after the word "base":

--from 130 degrees - 50 degrees and uncouples the base at 180 degrees --.

DISCLOSURE OF THE INVENTION

The system is based on the principle that an equal and opposite force is produced when an unbalanced weight is rotated. This force or motion causes the system to rotate about its center of mass and thus traverse a circular path in space. Two such weights are mounted on a carriage plate and are rotated in synchrony in opposite directions by two drive motors in order to cancel lateral forces. The carriage plate that carries the counter-rotating weights is mounted on a linear slide, so when the weights rotate, the carriage plate moves back and forth on the slide. The distance that this carriage moves on the linear slide is determined by the ratio of the weight of the weights to the weight of the slide, and the length of the coupling arms of the weights. This mechanism it will only reciprocate back and forth on the linear slide as the weights rotate, it is not yet a propulsion system. In order for this mechanism to perform as a propulsion system, the reciprocating motion of the carriage on the slide has to be selectively timed and coupled to the base of the unit that the slide is mounted on. The slide is mounted on the base and this base can also be the vehicle that is moved forward. In order to move forward, the base requires an additional element or device that periodically couples the motion of the carriage to the base and thus moves the base. The device that is used to accomplish this is an electric solenoid, which is mounted to the base. When the solenoid is activated the solenoid plunger engages the slide during a pre-determined point on its travel on the slide and thus couples the slide solidly to the base from 130 degrees - 50 degrees and uncouples the base at 180 degrees. Since the slide is in motion this motion is coupled to the base. The coupling and uncoupling points and timing are crucial to the proper operation of this device. The system starts out with zero momentum or no motion forward. After one complete cycle the propulsion system has moved forward some amount, for example one inch. The base is again stopped with no forward momentum. Then the weights are again in their initial position and are ready to repeat the cycle. The base of this system is again stopped with zero forward momentum.